services -- a number that increases with each year (see Figure 1).[24] This includes a diverse array of facilities-based and non-facilities-based and national and regional carriers.

28. The effectiveness and importance of resale competition (from non-facilities based carriers) is especially illustrative and interesting in light of the challenge of introducing competition in local exchange services.[25] Often the least-cost, most efficient entry strategy is to start as a reseller of wholesale services provided by facilities-based carriers, while investing in facilities as needs and opportunities dictate. This flexible entry strategy permits even relatively small firms to enter a capital-intensive industry incrementally. For example, both MCI and Sprint relied heavily on resale of AT&T services (at nationally averaged rates) while they were constructing their networks, and new competitors such as Excel, Worldcom, and Frontier are using resale to support their growth. Access to resale reduces the costs of facilities-based entry; and increased facilities-based entry reduces the costs of resale. The process thereby feeds on itself, promoting competition at both the wholesale and retail levels.

'Dominant Firm' Dominant?: An Empirical Analysis of AT&T's Market Power," *Journal of Law and Economics*, 39 (October 1996): 499-517.

[24] Another indicator of the ease of entry into long distance services is provided by the number of Carrier Identification Codes which are assigned. See Figure 2.

[25] As we explain further below, resale in long distance is more akin to the prospective market for UNEs than it is to Total Service Resale of local services. However, while we have significant market experience with long distance resale, firms have not yet implemented successful resale of UNEs. Removal of the regulatory barriers does not eliminate the economic barriers to entry nor demonstrate the commercial viability of resale of UNEs.

2. Market share trends demonstrate continued decline in AT&T market share.

29. Based on traditional measures of concentration (based on revenue shares), the long distance market would appear to be concentrated with over 80 percent of industry revenues attributable to the top three carriers (AT&T, MCI, and Sprint). However, the market has in fact become increasingly *less* concentrated over time: AT&T's market share has fallen from more than 88 percent to 51 percent between 1984 and 1997.[26] Moreover, this trend has been continuous from 1984 to the present and most of the market share currently being lost by AT&T has been captured by smaller firms other than MCI and Sprint.

30. To put things in perspective, the growth experience of some of the newer competitors such as Excel, Worldcom, or Frontier compares quite favorably with either the MCI or Sprint of a decade ago, indicating that there is no shortage of candidates to offer robust facilities-based competition to today's big three.[27] Such life-cycle comparisons are instructive because developing into a full-fledged facilities-based carrier takes time.

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[26] See Table 8, FCC Common Carrier Bureau, *Long Distance Market Shares*, October 10, 1997.

[27] See *Ibid.*

	Revenue Share or Toll Revenues		
	1984:2Q	**1996:2Q**	**1997:2Q**
AT&T	88.2%	54.1%	50.8%
MCI	4.7%	17.8%	17.2%
SPRINT	3.0%	8.8%	8.8%
WORLDCOM	n/a	4.5%	7.0%
OTHER	4.1%	14.7%	16.2%

WorldCom and other carriers captured an additional 4 percent over the past year alone.

3. Price trends demonstrate real declines, net of access reductions.

31. Prices for long distance services have declined significantly since 1984, even after accounting for declines in access charges.[28] Figure 3 shows that AT&T's Average Revenue Per Minute (ARPM) for switched interstate toll fell over 60 percent in real terms since divestiture -- and, net of access, prices declined by 37 percent.[29] Moreover, these declines were experienced across service categories, and were even larger for some services. For example, Figure 4 shows that between 1990 and 1995, real prices for consumer dial direct, business outbound, and business inbound toll services declined between 24 and 39 percent, offering benefits to all types of consumers.[30] Figure 5 demonstrates that all classes

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[28] See *Declaration of R. Glenn Hubbard and William H. Lehr*, note 20, *supra*; *B. Douglas Bernheim and Robert D. Willig*, note 20, *supra*, Chapter 2, pages 68-71; or *True Competition in the Long-Distance Market*, note 20, *supra*, which reports an FCC study which showed that real toll revenue per minute declined $0.0317 per minute from 1992 to 1995 while real access charges per minute declined only $0.0132 per minute -- demonstrating that prices declined significantly more than the decline in access charges.

[29] This is equivalent to a decline in nominal prices of 45 percent, which is in line with estimates reported by other analysts for long distance toll services overall. For example, Insight Research Corporation reported that prices had declined in the range of 60 percent (see *Telecommunications Without Networks: Resellers, Aggregators, and Rebillers in the U.S. Resale Market*, Insight Research Corporation, December 1994, page 12).

[30] For example, according to the trade press, prices to corporate business customers declined by 80 percent (see Michael T. Felix, "Preparing the Market for Enhanced Services Implementation," *Telephony*, vol. 230, no. 13, page 40), and today, some large customers are obtaining long distance services for as low as $0.07 per minute (see David Rohde, "VPN Rates on the Way Down," *Network World* 13 (December 2, 1996) pages 1, 14-15).

of residential customers -- both high and low usage -- benefited from these price declines.[31] Furthermore, the decline in ARPM net of access understates the true magnitude of the benefits delivered to customers because the price declines do not reflect improvements in service quality.

32. Several BOC experts have presented narrow and misleading views of the data attempting to demonstrate a contrary proposition.[32] These analyses proceed by selectively choosing individual tariffs or the starting and stopping dates for the time-series, or by relying on flawed telecommunications price indices. A common shortcoming of these studies is a failure to consider adequately the effects of discount programs and other new services on the menu of prices faced by consumers. Because it is a complex task to compare complex baskets of services (*i.e.,* calls which differ by distance, time of day, and enhanced billing and service features), we advocate focusing on the actual prices consumers pay as measured by the average revenue per minute realized by long distance carriers. When performed on this basis, it is clear that real price declines for long distance services have been substantial; we

[31] These data refute allegations by BOC experts that price declines have been narrowly targeted towards a small class of high volume residential users. Today, any residential user need pay no more than $0.15 per minute for long distance calls, and may actually pay much less depending on the time of the call and the caller's usage patterns.

[32] For example, see Paul W. MacAvoy, *The Failure of Antitrust and Regulation to Establish Competition in Long-Distance Telephone Services*, Cambridge: MIT Press (for the American Enterprise Institute), 1996.

discuss this in more detail in Section VI below.[33]

33. Indeed, if long distance competition were as limited and prices were as high as BellSouth claims, BellSouth and other BOCs should have taken advantage of the opportunity provided under the Act of 1996 to offer out-of-region long distance services. To the contrary, the BOCs, with very limited exceptions, have declined to provide out-of-region long distance service. At the same time, the BOCs have entered a myriad of other businesses outside of their own regions, including wireless, yellow pages and internet services.

4. Marketing and advertising programs demonstrate vigorous competition.

34. The close causal association between effective competition and the price declines noted above is directly observable from the advertisements and marketing strategies employed by long distance carriers. Each of the major carriers has offered innovative discount pricing proposals, all of which emphasize savings as an important if not the most important inducement to customers.[34] Although many of these programs are targeted to particular classes of consumers, there are programs for every group. The many residential calling programs (*e.g.*, block-of-time plans, discounts for frequently called numbers, and tie-ins to mileage plans) demonstrate that the benefits of these programs are widely available

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[33] See *True Competition in the Long-Distance Market*, note 20, *supra*, for additional data supporting these same conclusions.

[34] For example, consider AT&T's "1-800-COMPARE" and MCI's "Proof Positive" programs which allow customers to compare prices directly.

to all customer segments.[35]

35. Furthermore, the pattern of innovation and pricing indicates that there is not a clear market leader. AT&T has been forced to respond to new programs from MCI and Sprint as often as the other way around, and more important, the smaller reseller firms have often forced the big three to play catch-up. According to some industry analysts, Sprint's move to introduce simplified flat per-minute pricing is motivated both by a desire to respond to consumer demand and to respond more effectively to reseller competition.[36] AT&T has responded with its own "One Rate" plan offering calls for a flat rate of $0.15 a minute regardless of distance or time of day. In addition, for a $4.95 monthly fee, it offers a $0.10 a minute rate at all times. MCI has also responded with a flat rate of 12 cents at all times to customers who make over $15.00 a month in calls, and it currently offers all residential customers a $.05 minute rate on Sundays. In turn, Sprint now offers $50.00 a month of free calls on Monday evenings.

5. Competitiveness of wholesale long distance services precludes market power.

36. The competitiveness of long distance services is further enhanced by structural

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[35] According to B. Douglas Bernheim and Robert D. Willig, note 20, *supra*, Chapter 2, page 57: "Industry analysts estimate that, overall, 50 percent of residential users are enrolled in some discount plan, and that these customers account for 75 percent of residential revenues; other estimates place the fraction of long distance customers using discount plans as high as 80 percent."

[36] *Ibid.*, page 65.

features of the market. Extensive excess capacity for bulk transport is available from multiple suppliers, which guarantees the existence of competitive wholesale markets.[37] The ability to purchase essential inputs in competitive wholesale markets eliminates an important source of potential entry barriers. That is, bulk transport services will be available at efficient, cost-based prices (*i.e.*, at prices that approximate the long-run, forward-looking incremental cost of providing long distance facilities). This outcome, in turn, implies that flexible reseller entry can quickly exploit and eliminate any arbitrage opportunities which may temporarily arise if retail prices rise above efficient, incremental-cost-based levels.

37. The competitiveness of bulk wholesale markets is one of the most potent structural guarantors of effective and aggressive competition for retail services. Moreover, the availability of bulk transport services in wholesale interLATA markets is not comparable to the volume-discounted services offered to high-usage customers in local exchange markets. In long distance, bulk transport may be used as an input to offer a wide array of retail long distance services; it is therefore more akin to the prospective market for unbundled network

[37] The FCC has generally concluded that the market for business services is competitive. In 1991, the FCC found the outbound business services market segment to be "substantially competitive" based principally on its findings "that the business services marketplace is characterized by substantial demand and supply elasticities." (See Report and Order, *Competition in the Interstate Exchange Marketplace*, 6 FCC Rcd. 5880, 5887 (1991)). This finding was recently reaffirmed (see *In the Matter of the Motion of AT&T Corporation to be Reclassified as a Non-Dominant Carrier*, 11 FCC Rcd. 3271, 3318 (1995)). The FCC made the same finding with respect to inbound (*i.e.*, 800) services in 1993, once 800 numbers were made portable (see Second Report and Order, *Competition in the Interexchange Marketplace*, 8 FCC Rcd. 3668 (1993)).

elements than to that for existing local services. While all of the inputs necessary to offer long distance service are presently available in competitive markets, the same cannot be said for local exchange services.

38. Furthermore, while the Interexchange Carriers (IXCs) actively attempt to differentiate their offerings in terms of discount structures (*e.g.*, AT&T's True USA versus MCI's Friends and Family 2) and in terms of quality (*e.g.*, AT&T's True Voice), the focus of retail competition remains on price. Some BOC experts have argued that these attempts favor price collusion rather than price competition.[38] They argue that IXC services are relatively homogeneous and that their costs are similar, and that via the tariff process, the IXCs coordinate their pricing decisions to avoid active competition. Putting aside both the fact that such collusion is against the law and that it is contrary to actual experience of long distance competition, arguments for collusion rest on a number of theoretical and factual errors.

39. First, the availability and use of complex discounting programs makes implicit price collusion extremely difficult because the carriers do not observe the acceptance rates for each other's discount programs. Such differentiation is even more extensive in the bulk wholesale services (*e.g.*, long-term contracts and Tariff 12 offerings), which helps assure the competitiveness of retail toll services.

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[38] See Paul W. MacAvoy, note 32, *supra*. BOC experts do not explain why colluding IXCs do not raise prices further since the average price elasticity of demand for long distance services is generally estimated to be significantly less than unity in absolute value.

40. Second, while local exchange access costs do comprise a significant share of IXC costs (and reflect a subsidy to BOCs), there are many sources of cost heterogeneity reflecting technological differences and differences in marketing costs.[39] These differences are especially relevant for competition in the wholesale markets for bulk bandwidth where specialized facilities-based competition is prevalent.

41. Third, the pattern of similar pricing changes which has been erroneously dubbed "lock-step pricing" is consistent *both* with collusion (as the BOCs claim) and with competition (as all of the other evidence suggests).[40] Furthermore, in a competitive environment, similar moves in the tariff for basic rate services can be explained easily as a rational marketing response necessitated by the need to avoid confusing consumers who are attempting to evaluate alternative discount programs. Consider the marketing problem of selling in the presence of a competitor who offers a larger discount (on which consumers are most likely to focus) from a generally higher basic tariff (which few consumers ever read). Because the principal competitive efforts of the IXCs are focused on differentiating their products via discount or enhanced-service offerings, these offerings ought to be the focus of

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[39] See B. Douglas Bernheim and Robert D. Willig, note 20, *supra*, Chapter 2, page 49; and *Declaration of R. Glenn Hubbard and William H. Lehr*, note 20, *supra*.

[40] For example, common cost shocks should elicit similar pricing responses under many market structures.

an analysis of pricing behavior.[41]

42. Fourth, the alleged success of AT&T, MCI, and Sprint to collude on prices to earn excess margins would provide a potent inducement for expansion by existing competitors such as Worldcom, Excel, or Frontier, and would attract new entry into the market (for example, from out-of-region BOCs, CAPs, or cable television carriers).

43. To summarize, the structural features of long distance services encourage aggressive competition.

44. This competitive situation is quite different from that in local exchange markets. In local markets, almost all of the capacity is controlled by a single carrier. Today, with the BOC entry restriction into in-region, interLATA services in effect, the BOCs have an incentive to provide non-discriminatory access services to all long distance carriers. As we discuss further below, this incentive disappears once the BOC becomes a long distance competitor. The recent behavior of Southern New England Telephone Company (SNET) and GTE illustrates this phenomenon. AT&T has filed a complaint against SNET for its discriminatory behavior marketing its long distance services in

[41] As we noted earlier, this point explains why simplistic comparisons of tariff schedules should be avoided. A better measure of pricing trends is provided by comparing average revenue per minute trends, which reflect the weights of actual market demand, rather than arbitrary weights selected to support an advocacy analysis. Furthermore, higher basic rate service is likely to encourage accelerated migration to the new service offerings which is in keeping with the desire of IXCs to differentiate their products.

Connecticut,[42] and GTE has been delaying interconnection negotiations with AT&T, severely hindering AT&T's ability to provide local service.[43]

6. Customer switching among carriers demonstrates consumer sovereignty.

45. Potent evidence of consumer sovereignty is provided by the pace with which customers shift among long distance service providers. This provides a better measure of the level of competitiveness of a market than a simple comparison of overall market shares. For example, AT&T experienced 19 percent churn in 1992, and over 42 million long distance subscribers changed carriers in 1995.[44] The rate of churn rose further still in 1996, with 53 million customers changing carriers.[45]

46. To summarize, available evidence points to the conclusion that competition in long distance services is quite vigorous.

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[42] See *Petition of AT&T Communications of New England, Inc. for Review of the Southern New England Telephone Company's Local Office and Other Practices*, filed September 9, 1996, Docket No. 96-09-05. The anticompetitive behavior of SNET is discussed further, *infra*, at Section V.A.

[43] See *Direct Testimony and Exhibits of Russell D. Morgan* on Behalf of AT&T Communications of the Southwest, Inc. in connection with SOAH Docket No. 473-96-1191, PUC Docket No. 15711 (Complaint of AT&T Communications of the Southwest, Inc. Against GTE Southwest, Inc., *et al.*), page 28.

[44] See B. Douglas Bernheim and Robert D. Willig, note 20, *supra*, Chapter 2, page 67. The 19 percent churn statistic is based on the share of AT&T revenue associated with customers who either left AT&T for another carrier or vice versa.

[45] Based on estimates provided by AT&T.

B. Competition in Local Exchange Markets

1. Lack of present competition in local exchange markets

47. Consideration of similar data used to evaluate the competitiveness of long distance markets yields a starkly different conclusion: Markets for local exchange are not competitive presently. With the exception of a few niche markets, customers can purchase local exchange services from only one firm. The BOCs have a *de facto* monopoly that grants them significant market power over facilities that are essential for competition in both long distance and local telephone markets.

48. The lack of competition in the local exchange markets is starkly evidenced by price trends in those markets. In contrast to prices for long distance services, prices for local services have increased -- even after adjusting for the reduction in access charge revenues collected from the long distance providers (see Figure 6).[46] According to a recent study by the Consumer Federation of America, the ILECs are "earning $4.5 billion annually in charges resulting from excess profits at the expense of captive telephone ratepayers."[47]

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[46] The data in Figure 6 show that the Producer Price Index (PPI) for local services has risen 43 percent while the PPI for MTS and WATS fell 23 percent and 32 percent, respectively, from 1983 until 1995. Moreover, this relative disparity is understated because the PPI inadequately accounts for discount programs which are much more important in long distance services than in local services.

[47] See "Study Finds $4.5 Billion in Annual Excess Profits for Local Monopoly Telcos," Press Release from Consumer Federation of America, September 18, 1996, page 1. The press release summarizes results from a report by Mark N. Cooper, "Excess Profits and the Impact of Competition on the Baby Bells," Prepared for the Consumer Federation of America, Washington, D.C., September 1996.

49. This study goes on to show that local phone rates have increased in recent years, despite the fact that the overall cost of providing service has been declining.[48] Monopoly profits support cost inefficiencies[49] and provide the BOCs with a war chest from which to fund anticompetitive activities. To quote BellSouth:

> "[T]he dominant incumbent, if it fails to accept the benefits which flow from a competitive market, can and will rationally use interconnection negotiations to delay and restrict the benefits of competition.....A dominant incumbent can limit both the scale and scope of its competitors, raising their costs and restricting their product offerings. In addition, it can divert or delay competition and innovation to protect its current revenues..."[50]

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[48] The study concludes by stating: "The pressures put on regulators by the Baby Bells is certain to be vigorous, but the evidence is compelling that if regulators do the right thing, the initial impact of competition will be to restore Baby Bell profits to reasonable levels and create a level playing field for competition." See Mark N. Cooper, note 47, *supra*.

[49] According to BellSouth, "monopoly-bred inefficiency plays into the incumbent's hands by (1) enabling dramatic improvements in operating results through relatively easy 'fatcutting,' and (2) justifying high interconnection prices designed largely to recoup the incumbent's past inefficiencies" (see *Comments of BellSouth Europe to the European Commission's Green Paper on the Liberalization of Telecommunications Infrastructure and Cable Television Networks*, BellSouth Europe, March 15, 1995, page 5).

[50] See *Regulation of Access to Vertically-Integrated Natural Monopolies*, discussion paper, BellSouth New Zealand, September 1995, page 2. Later the same report argues that it is rational for the incumbent:

> "to exploit the regulatory regime to the greatest possible extent without exposing itself to the threat of intervention or adverse changes to the regime. In fact, the directors of the dominant incumbent have a fiduciary duty to seek to extract the highest rents available to it as a result of its business position (as does any other profit-maximizing firm).....It has very powerful incentives to include monopoly rents in the price of complementary network services in

50. In recognition of their dominant position, BOCs such as BellSouth are subject to substantial regulatory oversight from state commissions and the FCC. This ranges from traditional rate-of-return regulation in some states to more indirect forms of oversight in other states. The Telecommunications Act of 1996 anticipates the eventual deregulation of all telecommunications services, once effective competition makes regulatory oversight unnecessary.

51. CAPs such as Metropolitan Fiber Systems (MFS) and Teleport typically have aggressively competed for the particular services of a segment of customers in a subset of markets. These are principally the access services demanded by large commercial customers in major metropolitan areas, and most often located in large office buildings. To the extent they are now seeking to provide service as CLECs as well, they are largely pursuing the same limited customer base. Therefore the CAPs are irrelevant to the vast majority of customers in most markets, most particularly residential customers.[51]

52. Even if the CAPs' market focus were broader, their physical capacity is both too small and too limited in geographic coverage to handle more than a small subset of BOC

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order to perpetuate and increase its monopoly profits. It similarly has powerful incentives to reduce the ability of its competitors to claim market share."
Id., page 10.

[51] The CAPs' principal market opportunity has been to provide special access (*i.e.*, dedicated access) and private line services in many cases to long distance carriers to interconnect their points of presence (POP) and the BOCs' switching centers. This has been feasible because these are the services which depend least on cooperation of the BOCs and rely least on the BOCs' facilities. Therefore, CAPs are less vulnerable to anticompetitive practices by the BOC.

traffic.[52] Accordingly, the presence of CAPs in certain areas does not constrain BOC monopoly power or the BOC's ability to engage in leveraging.

53. The opening of local exchange markets to effective competition as anticipated by the Act will encourage innovation and the further development of local exchange technologies. For example, telephony services may be added to existing non-telephone wireline networks (*i.e.*, cable television or electric utility networks). However, while this may provide a promising avenue from which *future* competition may emerge, at this point it is commercially unproven. Therefore we cannot rely on this technology to restrain BOC market power today.

54. Overlaying telephony services on an existing cable television or electric power network presents a number of important challenges. First, there is no generally available technology for providing telephony over cable or electric networks. Second, there has been no history of direct telephony experience. Third, there are significant costs associated with retrofitting these networks to support telephony. There is no general agreement among analysts about the optimal strategies and costs for effecting these upgrades. Fourth, in the case of cable television, many carriers have a poor reputation for service quality which would need to be remedied before these firms would be credible as viable telephony

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[52] According to B. Douglas Bernheim and Robert D. Willig, note 20, *supra*, Chapter 3, page 10, the CAPs deployed 700,000 network fiber miles of transmission capacity in 1995, compared to the LECs' more than 8 million fiber miles and well over a billion miles of copper cable. In 1995, there were only 9,000 buildings on CAP networks nationwide. See B. Douglas Bernheim and Robert D. Willig, note 20, *supra*, Chapter 3, page 11.

competitors. Fifth, as the dominant providers of local television entertainment services, cable television providers may have an incentive to adopt a strategy of mutual forbearance wherein they stay out of telephony with the implicit understanding that the BOCs stay out of television services.

2. There is no effective local competition in Louisiana

55. Louisiana provides no exception to the BOCs' monopoly control of local exchange markets. In its Louisiana service territory, BellSouth has resold little more than 7,000 access lines.[53] In addition, BellSouth concedes that it has not unbundled a single loop in Louisiana.[54] Moreover, BellSouth acknowledges that it currently faces *no* facilities-based competition for residential customers.[55] It is therefore safe to assume that BellSouth controls all but a *de minimis* portion of the access lines in its service area, and that customers in BellSouth's Louisiana service areas have no realistic choice in selecting their provider of local exchange service. The presence of PCS providers, the number of interconnection

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[53] *Affidavit of Gary M. Wright on Behalf of BellSouth*, in the Matter of Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-region, InterLATA Services in Louisiana, Before the Federal Communications Commission (November 1997), ¶ 122.

[54] Brief in Support of Application By Bellsouth for Provision of In-Region, InterLATA Services in Louisiana, In the Matter of application by BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc. for Provision of In-Region, InterLATA Services in Louisiana, pp. 51-52 (Nov. 6, 1997).

[55] *Affidavit of Glenn A. Woroch on Behalf of BellSouth*, in the Matter of Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-region, InterLATA Services in Louisiana, Before the Federal Communications Commission (November 1997), ¶ 77.

agreements BellSouth has signed, or the "proximity" of other carriers' networks to BellSouth customers fails to alter this critical fact.

a. PCS wireless service is not a viable alternative to wireline service in today's markets.

56. Mr. Denk and Dr. Banerjee both submit affidavits that address the potential of PCS wireless services to offer effective local competition to BellSouth. Presumably, the intent of providing this evidence is to demonstrate that there is already effective local competition, irrespective of the status of implementation of the Telecommunications Act of 1996.[56] Both Mr. Denk and Dr. Banerjee are quite circumspect in their claims regarding the ability of PCS to offer effective competition today, claiming only that there are a subset of current subscribers who seem to find PCS a viable alternative to wireline service from BellSouth. Their circumspection is understandable because it is clear that, while PCS or some other wireless technology (*e.g.*, LMDS[57]) *may* offer a viable alternative to wireline service in the future, PCS is not a viable alternative today. Current estimates of PCS

[56] Therefore, this argument does not bear on an assessment of whether non-PCS competitors are able to effectively utilize the pro-competitive unbundling and interconnection provisions required by the Act.

[57] Local Multipoint Distribution Service. The FCC is planning to auction additional spectrum for LMDS in December. According to one industry expert and strong believer in the future potential of wireless, "it's going to be a few years before we really see any wireless local loop on a grand scale." See Wilson Dizard, "Wireless Profits Seen Flowing Despite Price Pressures," *TR Wireless News,* October 30, 1997.

penetration rates approximate 1.5 percent by the end of 1997.[58] Moreover, even this penetration figure overstates the numbers of people who are using PCS as a substitute for wireline service. BellSouth's own survey results indicate that, among the very small numbers of current PCS users, only 3 percent have replaced their residential wireline phones with PCS service.[59]

57. Additional evidence that PCS is not viewed today as a substitute for wireline service (except perhaps by a small niche minority) is how it is marketed. AT&T no longer distinguishes between its PCS and mobile cellular offerings -- referring to both offerings as Digital PCS Services.[60] PCS providers are positioning the service as an alternative or extension to *mobile* wireless services, not *fixed* wireless or wireline. Supporting mobile services that provide reliable connections to users that are zipping along the highway at 55 miles per hour is a technically challenging and expensive proposition. The underlying cost structure of current PCS architectures that are being deployed is neither intended nor likely to be compatible with major competition with wireline networks.

58. Because of the limited cellular competition heretofore, the higher cost of

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[58] See Angela Littwin, "The Great PCS Buildout: a status report," *Telecommunications,* vol. 31, no. 4, April 1997. According to Ms. Littwin: "The realities of implementation have set in -- rollouts have been slowed; roaming capabilities are being added gradually; coverage is far from complete. Carriers are struggling with huge start-up costs, potential over-competition, and antenna-siting problems."

[59] *Affidavit of William C. Denk*, page 5, note 10, *supra.*

[60] See *Affidavit of Jordan Roderick* being filed along with our affidavit.

providing high speed mobility, and the higher value that cellular users place on mobility, cellular services have sold at a premium, which restricts use of such services to the high-value end of the telecommunications market. With increased PCS competition, wireless service prices have fallen. However, prices cannot fall below costs. Moreover, current cellular/PCS architectures may be subject to decreasing returns to scale.[61]

59. In summary, therefore, PCS does not currently offer effective competition for BellSouth's dominant wireline business. Moreover, while wireless technology offers one of the best hopes for effective future facilities-based competition for wireline carriers, it seems more likely that one of the new fixed-wireless technologies under development will provide the vehicle for this competition rather than wireless networks based on existing PCS architectures.

60. The analyses of Mr. Denk and Dr. Banerjee simply do not justify a contrary conclusion. Mr. Denk reports the results from a small marketing research survey conducted on current PCS users in BellSouth's territory. Based on this survey, Mr. Denk concludes that a "secondary impact of the introduction of PCS on telecommunications purchase patterns is to cannibalize some business from providers of traditional wireline service in Louisiana and from other areas."[62] Because Mr. Denk did not provide a detailed description of the

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[61] One way to expand wireless capacity is to shrink the size of cells. However, this approach would increase the cost of siting and erecting antennas because, for example, there are less choices to site antennas and reduced opportunities to take advantage of real estate bargains.

[62] See *Affidavit of William C. Denk,* note 10, *supra*, page 9.

survey methodology or questionnaire, nor data to indicate how representative his sample of customer preferences, and because the questions are not quantitative[63], we cannot verify whether his results are reliable. Moreover, because the sample was drawn from PCS users, it is likely to be biased and not representative of the average residential subscriber. Early adopters of a new technology tend to have quite different purchasing behavior than the eventual mass market (*e.g.*, they may be more prone to experiment).[64] Even if one were to accept his results on face value, they imply that PCS offers only limited competition in the most favorable circumstances.[65]

61. Dr. Banerjee provides a qualitative assessment of the types of consumers who would be most likely to switch from wireline to PCS service in the New Orleans major metropolitan area based on a comparison of current PCS and wireline tariffs. He reports that consumers with low intraLATA toll and local usage would be the most likely to switch

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[63] Mr. Denk's survey samples consumers' reported preferences using questions regarding their behavior in particular situations. Such self-reporting is often unreliable and difficult to interpret because of such things as framing bias and other psychological effects common to survey-based research. It is not clear how Mr. Denk controlled for these effects or if such effects were important in this case.

[64] Mr. Denk's interpretation of his results is suspect because he does not allow us to determine whether the calls made on PCS are incremental small calls or substitute calls (for example, when the PCS user reports a propensity for using the PCS phone when away from home, is that for calls that would have been made anyway on a wireline phone, or does the PCS user make more phone calls?).

[65] The principal cannibalization effect is to use the PCS as the primary phone or to purchase a PCS phone in lieu of adding a second line. Both of these are more important for higher-value consumers.

services. He does not address the question of whether this is a large or minuscule segment of the customer base, making the results difficult to interpret.[66] Nevertheless, he seems to wish to imply that his assessment that PCS is a preferred alternative for a subclass of subscribers is conservative because he fails to take into account the qualitative value of mobility.[67] This inference is misleading because there are many applications where PCS service is not preferable. For example, replacing a home phone with a PCS phone makes it more difficult to add extensions (*i.e.*, each PCS phone has a unique number).

62. Dr. Banerjee's analysis misstates the nature of the consumer decision. Many consumers, especially residential consumers, choose their service based on their expected usage which varies month to month and on other features which are not part of Dr. Banerjee's analysis (e.g., the reputation of the carrier or their knowledge of comparative tariff offerings). Dr. Banerjee does not explain how robust his results are to uncertainty over usage rates. Dr. Banerjee also fails to evaluate consumer comparisons between the Prime Co and Sprint PCS plans. Based on a cursory review of the offerings in his table,[68] it appears that Sprint PCS rates are much higher than for PrimeCo, making it difficult to understand why Sprint would have any customers if we were to take Dr. Banerjee's analysis at face

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[66] Also he does not provide sufficient detail to determine whether his service comparison is accurate. He should also include all user costs of adopting PCS services, which means including one-time non-recurring costs such as the service installation fee, the phone, etc. It is not clear how he treated these expenses.

[67] See *Affidavit of Aniruddha Banerjee,* note 9, *supra,* page 7.

[68] See *Affidavit of Aniruddha Banerjee*, note 9 *supra,* page 3.

value. The fact that Sprint PCS and PrimeCo offer such different program options indicates that Dr. Banerjee's analysis greatly oversimplifies the nature of competitive decision-making in the market.

63. Finally, the analyses of Mr. Denk and Dr. Banerjee are flawed because they are static comparisons that take existing prices as given. If PCS is an effective local service competitor to wireline services then BellSouth would be expected to respond by lowering prices -- after all this is one of the expected benefits of competition. The higher the price of wireline service above cost, the more likely that PCS will be perceived as an attractive substitute for wireline service. Therefore, evidence that PCS is perceived as a substitute for wireline services at today's tariff rates may tell us more about the excessive subsidies and monopoly profits embedded in today's wireline rates than about effectiveness of PCS suppliers to restrain the market power of BellSouth.

b. Interconnection agreements alone do not demonstrate the existence of competition in local exchange markets.

64. BellSouth's efforts to create the illusion of a competitive market by describing the number of interconnection agreements it has signed is also unavailing. The existence of an interconnection agreement does not mean that competition exists. Until the terms of the interconnection agreements are fully implemented in the market, they provide no measure of actual local exchange competition. This point is best illustrated by BellSouth's own statistics. BellSouth claims that in Louisiana it has entered into 88 interconnection agreements, including 26 agreements with potential wireline carriers who have indicated an "intent" to

provide local exchange service in whole or in part over their own facilities.[69] It concedes, however, that "[a]s of October 31, 1997 only ACSI had BST-provided local exchange interconnection services installed and in service in Louisiana and was providing wireline facility-based local exchange services."[70] By BellSouth's own accounting, therefore, it is plain that there is no correlation between the number of signed interconnection agreements and the presence of any meaningful local exchange competition in Louisiana.

c. The proximity of BellSouth customers to other carriers' networks does not establish the existence of competition in local exchange markets.

65. Nor is the proximity of potential competitors' facilities to current BellSouth revenue sources a proxy for actual competition. Through an "addressable revenue" analysis, BellSouth endeavors to demonstrate that there is nascent competition in Louisiana because of "the relative concentration of BST revenue streams . . .and the proximity of these revenues to BST-identified competitive facilities."[71] Specifically, it has considered "at risk" the revenue generated by BellSouth customers who are located within 3,000 feet of selected carriers' fiber optic networks.[72] The analysis is misleading, because the cost, difficulty and delay in extending existing facilities to actually reach these BellSouth customers is likely to

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[69] *Affidavit of Gary M. Wright*, ¶ 7, note 53, *supra*.

[70] *Affidavit of Gary M. Wright*, ¶ 8, note 53, *supra*.

[71] *Affidavit of Gary M. Wright*, ¶ 6, note 53, *supra*.

[72] *Affidavit of Gary M. Wright*, ¶ 4, note 53, *supra*.

be prohibitive for many, if not most, local service competitors. Thus, the suggestion that BellSouth is in imminent danger of losing vast numbers of customers to CLECs is baseless.

66. There is thus no evidence of any local exchange competition capable of constraining BellSouth's exercise of market power in Louisiana.

3. Sources of difficulty introducing local exchange competition

67. To compete in local exchange services, an entrant must rely on the cooperation of the monopolist BOC -- in this case, BellSouth. At the very least, an entrant will need to interconnect to the BOC's facilities in order to exchange traffic between callers on the entrant's network and the BOC's. Moreover, as recognized by the Act, it is neither feasible nor efficient for an entrant to replicate all of the facilities of the BOC in order to provide service. Therefore the BOC is required by the Act to offer for sale both UNEs and wholesale versions of its retail services. For entry to be feasible, an entrant needs to be able to lease essential monopoly inputs on a flexible basis from the BOC. If these inputs are priced at efficient levels, then the entrant will be able to make the correct "make versus buy" decisions and will invest in facilities only when such investment is efficient.

68. Obviously, an entrant that is willing to focus narrowly on special access or private line services is less dependent on the cooperation of the BOC, and hence less vulnerable to anticompetitive behavior. Broad entry into local exchange services of the sort

anticipated by AT&T requires entry into switched services and thereby depends on the full cooperation of the BOC. A BOC is unlikely to cooperate willingly because competition threatens its dominant market position.[73] It would prefer to maintain its monopoly over local services and be granted opportunities to expand into other services without having to face any regulatory constraints. This preference is simply consistent with profit-maximizing behavior. The Act and the FCC's Order clearly recognized the necessity of a legal mandate if a BOC such as BellSouth is to cooperate with entrants.[74] Indeed, if such legal mandates were unnecessary, the Act would have been unnecessary.

69. There are many price and nonprice strategies which a BOC can utilize to

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[73] In noting the incentive and ability of BOCs to delay competition by refusing to cooperate, Professor Marius Schwartz noted that:

> "BOCs repeatedly and successfully delayed the introduction of dialing parity, long after it was determined to be in the public interest. In Minnesota, the delay caused by repeated legal and administrative challenges was close to a decade."

See *Supplemental Affidavit of Marius Schwartz on Behalf of the U.S. Department of Justice,* in the Matter of Application of BellSouth Corporation to Provide In-Region, InterLATA Long Distance Services in South Carolina, CC Docket No. 97-208, Before the Federal Communications Commission, November 1997, page 15.

[74] The FCC's Order notes that "[a]n incumbent LEC ... has the ability to act on its incentive to discourage entry and robust competition by not interconnecting its network with the new entrant's network or by insisting on supracompetitive prices or other unreasonable conditions" (see paragraph 10 of the *First Report and Order*, In the Matter of Implementation of Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, Released August 8, 1996, hereafter referred to as *First Report and Order*). Moreover, the FCC recognized that the BOCs possess superior bargaining power and that a new entrant "comes to the table with little or nothing the incumbent LEC needs or wants" (see *First Report and Order* ¶ 15).